

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Amended) A computer/network interface device comprising:
a first interface for receiving data from a first zone in a first zone data format;
means for processing said received data through performance of a cryptographic operation on at least a portion thereof;
a second interface for sending said processed data to a second zone in a second zone data format; and
means arranged to pass said processed data exclusively from said processing means to said second interface.
2. (Previously Amended) A computer/network interface device as in claim 1 further comprising:
means arranged to convert said received data in said first zone data format into at least one data format other than said first zone data format prior to said data processing.
3. (Previously Amended) A computer/network interface device as in claim 1 further comprising:
means arranged to transform the data format of said received data from said first zone at least twice prior to said data processing.

4. (Previously Amended) A computer/network interface device as in claim 1 in which said first zone data format is packetized data, said device further comprising: means for reading at least one item of identification data from each packet; wherein said processing means is arranged to process each respective packet in dependence on each corresponding item of identification data.

5. (Previously Amended) A computer/network interface device as in claim 4 further comprising:

a store for storing one or more rules, each rule being linked with at least one of item of identification data; wherein said processing means is arranged to process each packet in dependence upon the rule linked with the corresponding item(s) of identification data.

6. (Previously Amended) A computer/network interface device as in claim 1 wherein one of the first and second interfaces is suitable for connection to a host such that the data format utilized by such a connected interface is one utilized by the host.

7. (Previously Amended) A computer/network interface device as claimed in claim 5, wherein one of the first and second interfaces is suitable for connection to a host such that the data format utilized by such a connected interface is one utilized by the host in which, in response to receiving at least one control packet including at least an item of control identification data and control instructions through the interface not connected to the host and reading said item of control identification data from a control packet, said processing means is

arranged to change said rules in said store in dependence upon said corresponding control instructions.

8. (Previously Amended) A computer/network interface device comprising:
 - a first interface for receiving data from a first authorized party in a first data format;
 - means for processing said received data through performance of a computational operation on at least a portion thereof;
 - a second interface for sending said processed data to a second authorized party in a second data format;
 - means arranged to pass said processed data exclusively from said processing means to said second interface;

wherein said operation performed by said processing means is such that if said sent processed data is intercepted by an unauthorized party, the recovery of said received data from said processed data is computationally unfeasible.

9. (Previously Amended) A method of operating a computer/network interface device comprising:
 - receiving data at a first interface from a first zone in a first zone data format;
 - processing said received data through performance of a cryptographic operation on at least a portion thereof;
 - passing said processed data exclusively from said processing means to a second interface;

and

sending said processed data from said second interface to a second zone in a second zone data format.

10. (Previously Amended) A method of operating a computer/network interface device as in claim 9 further comprising:

converting said received data in said first zone data format into at least one further data format prior to said processing.

11. (Previously Amended) A method of operating a computer/network interface device as in claim 9 further comprising transforming the data format of said received data from said first zone at least twice prior to said processing.

12. (Previously Amended) A method of operating a computer/network interface device comprising:

receiving data at a first interface from a first authorized party in a first data format;
processing said received data through performance of a computational operation on at least a portion thereof;

passing said processed data exclusively to a second interface;
sending said processed data from said second interface to a second authorized party in a second data format;

wherein said performance of said computational operation is such that if said sent processed data is intercepted by an unauthorized party, the recovery of said received data from said processed data is computationally unfeasible.

13. (Currently Amended) A ~~computer/network~~host/network interface ~~device~~apparatus comprising:

a first port for communication with said ~~computer~~host using a ~~computer~~an internal data format used internally by said host;

a second port for communication with said network using a network data format;

means for processing data received from at least one of said ports through performance of a cryptographic operation on at least a portion of said received data; and

means arranged to pass said processed data exclusively from said means for processing to the other of said ports.

14. (Currently Amended) A ~~computer/network~~host/network interface device as in claim 13 further comprising:

means arranged to convert said received data in either said ~~computer~~internal data format or said network data format into at least one data format other than said ~~computer~~internal data format or network data format prior to said data processing.

15. (Currently Amended) A ~~computer/network~~host/network interface device as in claim 13 further comprising:

means arranged to transform the data format of said received data from said ~~computer~~internal data format or network data format at least twice prior to said data processing.

16. (Currently Amended) A ~~computer/network~~host/network interface device as in claim 13 in which said ~~computer~~internal data format or network data format is packetized data, said device further comprising:

means for reading at least one item of identification data from each packet;
wherein said processing means is arranged to process each respective packet in
dependence on each corresponding item of identification data.

17. (Currently Amended) A ~~computer/network~~host network interface device as in
claim 16 further comprising:

a store for storing one or more rules, each rule being linked with at least one item of
identification data;

wherein said processing means is arranged to process each packet in dependence upon
the rule linked with the corresponding item(s) of identification data.

18. (Currently Amended) A ~~computer network~~host/network interface device as in
claim 17 in which, in response to receiving at least one control packet including at least an item
of control identification data and control instructions through said second port and reading said
item of control identification data from a control packet, said processing means is arranged to
change said rules in said store in dependence upon said corresponding control instructions.

19. (Previously Presented) A computer/network interface device comprising:
a first port for receiving data from a first authorized party in a computer data format;
a second port for sending processed data to a second authorized party in a network data
format;
means for processing data received from at least one of said ports through performance of
a computational operation on at least a portion of said received data; and

means arranged to pass said processed data exclusively from said processing means to the other of said ports;

wherein said operation performed by said processing means is such that if said sent processed data is intercepted by an unauthorized party, the recovery of said received data from said processed data is computationally unfeasible.

20. (Previously Presented) A method of operating a computer/network interface device comprising:

receiving data at a first port from a first authorized party in a computer data format; processing said received computer data through performance of a cryptographic operation on at least a portion thereof;

passing said processed data exclusively from said processing means to a second port; and sending said processed data from said second port to a second authorized party in a network data format.

21. (Previously Presented) A method of operating a computer/network interface device as in claim 20 further comprising:

converting said received data in said computer data format into at least one further data format prior to said processing.

22. (Previously Presented) A method of operating a computer/network interface device as in claim 20 further comprising transforming the data format of said received data from said first authorized party at least twice prior to said processing.

23. (Previously Presented) A method of operating a computer/network interface device comprising:

receiving data at a first port from a first authorized party in a computer data format;
processing said received data through performance of a computational operation on at least a portion thereof;

passing said processed data exclusively to a second port;
sending said processed data from said second port to a second authorized party in a network data format;

wherein said performance of said computational operation is such that if said sent processed data is intercepted by an unauthorized party, the recovery of said received data from said processed data is computationally unfeasible.

24. (New) A host/network interface apparatus adapted to be plugged into a host, said apparatus comprising:

a first port for communications with said host using an internal data format used internally by said host;

a second port for communications with said network using a network data format;
means for processing data received from at least one of said ports through performance of a cryptographic operation on at least a portion of said received data; and
means arranged to pass said processed data exclusively from said processing means to the other of said ports.